Insights into use of Household Expenditure Survey data

Summary of October 2021 survey of user needs for household expenditure data and views on alternative data sources

Released 14/02/2022

Feedback

This paper summarises the views, opinions, and conclusions expressed by the users of Household Expenditure Survey data who were surveyed in this study. The ABS has not taken any decisions yet about the future of household expenditure data and will undertake further consultation with users and the wider Australian community this year.

Executive summary

The Household Expenditure Survey (HES) is the only comprehensive data collection of household spending in Australia linked to household type (single person, two parents and two children etc). The data is collected every six years. A two-year delay to the 2021-22 collection means the ABS is reimagining how the organisation delivers household expenditure data. In particular, the ABS is investigating ways to deliver more frequent and insightful household expenditure data using a survey in combination with big data.

To support this work, the ABS set up a temporary team to investigate the future of the HES. Initial investigations include alternative sources of household expenditure data such as bank data and other big data sources. The project is applying human-centered design techniques to understand the needs and expectations of HES data users and to co-design a solution.

Following on from [initial user consultations (/statistics/research/household-expenditure-survey-data-report-user-views)](#) conducted with HES users between July to August 2021, another round of consultation was conducted in October 2021. A total of 215 current HES users were invited to complete a survey. We received 82 responses from four user types: academic, federal and state government, non-government organisations (NGOs), and private sector. Many of these users participated in the previous round of consultations. It is intended that public consultation and a

Privacy Impact Assessment will be undertaken prior to any decisions on use of alternative data sources for the production of household expenditure statistics.

The survey asked users about their most used classification scheme for expenditure items, details about their used classification scheme, and their expectations of the comfort level and concerns of Australians if the ABS was to use bank data. The survey was not compulsory, and users could choose to answer some or all of the questions. This paper summarises the responses provided by the HES data users who responded in this study.

The majority of HES users in this study choose to use the Household Expenditure Classification (HEC) rather than the international classification scheme: the Classification of Individual Consumption by Purpose (COICOP). Reasons for this included HEC's greater level of granular detail, its coherence with past and current ABS publications, and its conceptual alignment to Australian expenditure patterns.

Around a quarter of respondents use 46 or more of a possible 48 HEC codes at the 4-digit level. Housing, heating, and transport were the most frequently used HEC classifications at a 4-digit level. Users can be broadly split into 'macro' users who analyse at a 2-digit level, and 'micro' users who report analysis at a 10-digit level. Few users report using the middle classification levels.

Users in this study had mixed views about comfort levels and concerns with using bank data for household expenditure statistics. Privacy was a main theme on whether Australians would be comfortable or uncomfortable with the ABS using bank and other big data sources to produce household expenditure statistics.

Most users prefer to use the Household Expenditure Classification

Household expenditure statistics are published under both HEC and COICOP, to a 10-digit and 4-digit level respectively. When asked which classification scheme they used, sixty-two respondents provided a response. Fifty-seven respondents reported using HEC, with only five respondents using COICOP (Figure 1).

When asked why they use HEC instead of COICOP, four distinct reasons were provided.

The level of detail in HEC was mentioned by nearly one third of users as the reason for using HEC. Some users found that the COICOP "is too aggregate for most useful analysis" in comparison to HEC (Government agencies, Academic, Private sector, NGOs).

Around a quarter of respondents noted HEC's coherence with historic ABS outputs and other products, such as Consumer Price Index (CPI): "[HEC] aligns better with the detailed prices released in the CPI publications and the older HES data sets." (Government agencies, Academic)

Some users noted HEC's conceptual alignment with Australian purchasing patterns as the reason for their preference (Government agencies).

> "...[HEC] more closely aligns with Australian purchasing patterns. HEC and COICOP have very different conceptual basis - HEC captures all expenditure, and is based on the actual cost of purchases, while COICOP only captures consumption expenditure and only shows the amount consumed during the period." - Government agency

Five users mentioned familiarity with HEC as a reason as to why they prefer HEC over COICOP (Government agencies, Private sector, Academic).

The five users who reported using COICOP did not provide reasons for their choice.

## Classification preference is impacted by granularity

In previous user consultations, users clearly indicated their need for detail in expenditure data. One explanation for the high use of HEC is that the ABS publishes HEC-classified expenditure at a more granular detail (10-digit) than COICOP-classified expenditure (4-digit).

To investigate whether granularity impacts classification preference, this study asked users whether they would prefer HEC or COICOP if both were published at the same level of granularity. Fifty-four (of fifty-seven) HEC users and four (of five) COICOP users provided a response.

Half of current HEC users were unsure whether they would change to COICOP if it was published at a more granular level or continue using HEC. The other 44% of HEC users mentioned that they would continue using HEC even if COICOP was released at a more granular level, and the remaining 5% of HEC users stated that they would change to COICOP. The four COICOP users responding to this question did not know which classification scheme they would prefer (Figure 1).

When asked why they had these preferences, users gave similar responses as the reasons about their current use case: level of detail, coherence with other ABS outputs, conceptual alignment with Australian purchasing patterns and familiarity. Several users also added that their existing analysis code is based on HEC, deterring them from switching classifications.
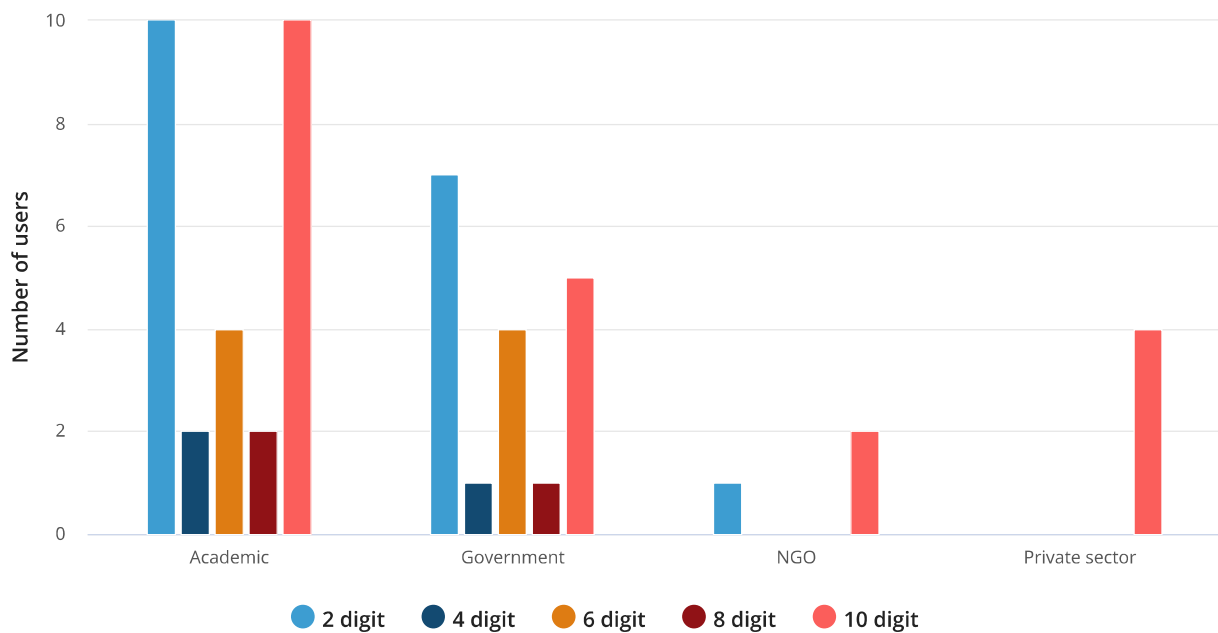
Figure 1: Half of respondents unsure about preferring detailed COICOP or HEC
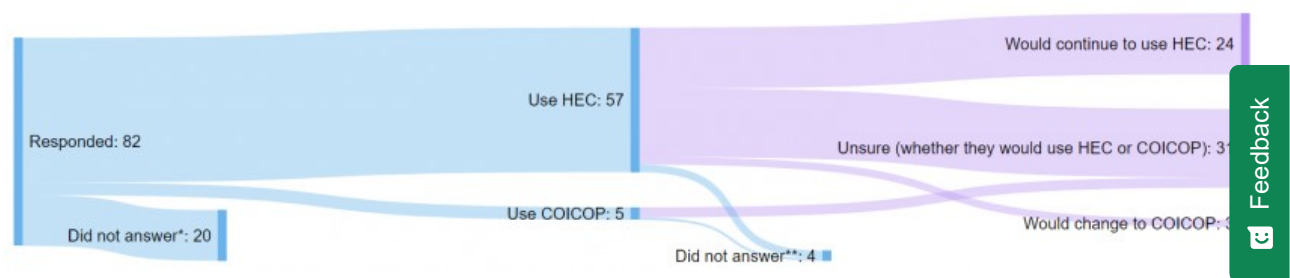
There is a clear distinction between macro and micro users in terms of granularity

The HEC currently outputs to 10-digit level, with a total of 709 codes (out of 1,380 codes throughout the hierarchy). HEC users were asked the finest level they conduct analysis at. Two types of users are apparent: 'macro' users who reported that they use the lowest (2-digit) level of detail, and 'micro' users who use the highest level (10-digit) of detail. Few users in this study reported using the middle classifications. This pattern was apparent across academic and government users in this study. Additionally, the small sample of NGO and private sector users in this study appear to mainly use 10-digit HEC codes (Figure 2).

Figure 2: There are Macro (2-digit) and Micro (10-digit) data users

Figure axis label: Number of users

Categories: Academic, Government, NGO, Private sector

Legend: 2 digit, 4 digit, 6 digit, 8 digit, 10 digit

## Housing, heating and transport classifications are most used

One quarter of users in this study reported that they use nearly all the 4-digit HEC codes in their analysis. These users were predominantly from government or the private sector. Users from academia or NGOs were more uniformly distributed across the HEC codes.

The most frequently used 4-digit HEC codes across HEC users were: Current housing costs (HEC 0101), Mortgage repayments (HEC 1701), Electricity, gas, heating oil and wood (HEC 0201), and Transport (HEC 1001).

User views on producing expenditure statistics with bank data

The survey asked how HES data users expect Australians to react to ABS using bank data to improve the production of expenditure statistics. Users were asked "how comfortable do you think the Australian community would be with ABS using bank data to compile expenditure statistics?". Sixty-three users volunteered a response, with views somewhat evenly split across measures of comfort and discomfort (Figure 3).

Figure 3: HES user views on community expectations are mixed
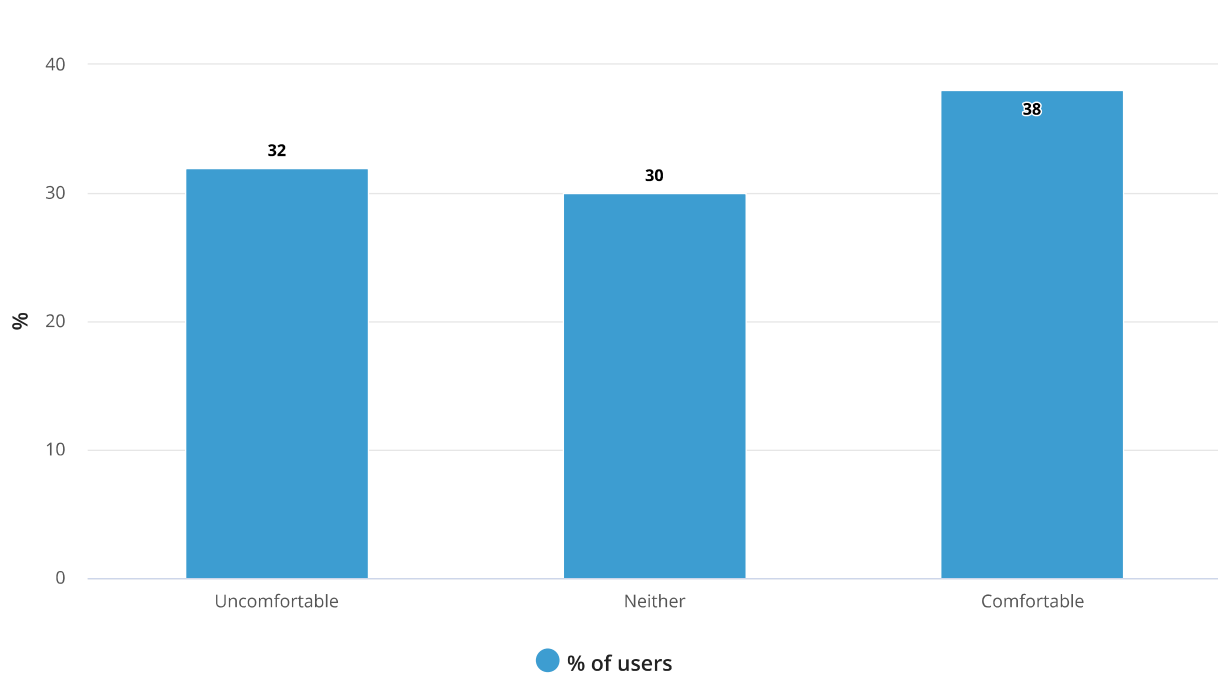
When asked why users expected Australians to be either comfortable or uncomfortable with the ABS using bank data, privacy was the prominent theme, with trust in the ABS and its ability to manage privacy a mitigating factor.

> "I would trust the ABS to maintain the appropriate levels of privacy protection in regards to this information and the ABS's legal framework, to my understanding, would prevent its use by other government authorities for non-statistical uses." - Academic

The importance of having more accurate data was noted as a positive theme in relation to comfort with bank data use; "I think there is an understanding that any improvements in accuracy in published ABS data would be beneficial."

Additionally, users were asked whether they think Australians would be more or less concerned if the ABS used bank data rather than other public data sources. Fifty-nine users responded to this question, with more than half of the responses noting that Australians would have equal concerns about the use of bank data or other public data sources.

Future considerations

The ABS is very grateful to the users who took the time to participate in this voluntary study. The study forms part of ABS' user-centred design approach to reimagine how the organisation collects household expenditure data. This study, along with input from past and future consultations with users of HES data and the Australian community will help guide our thinking.

The ABS takes the security of personal information seriously. In accordance with ABS legislation, and the Privacy Act

1988, strict standards are in place to protect the security and confidentiality of all information used to produce statistics, regardless of the source. Consistent with the [ABS Privacy Policy (/about/legislation-and-policy/privacy/privacy-abs/abs-privacy-policy-statistical-information)](/about/legislation-and-policy/privacy/privacy-abs/abs-privacy-policy-statistical-information), a Privacy Impact Assessment would be conducted and appropriate controls implemented should a decision to use alternative data sources be made.